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PATENT
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ATTORNEY DOCKET NO. 22253-71212

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: BAUMGARDNER et al.

Application No.: 10/071,435

Group Art Unit: 3736

Filed: FEBRUARY 08, 2002

Examiner: not yet assigned

Entitled: EQUILIBRATION METHOD FOR
HIGH RESOLUTION IMAGING OF LUNG
COMPLIANCE AND DISTRIBUTION OF
FUNCTIONAL RESIDUAL CAPACITY

Assistant Commissioner for Patents
Washington, D.C. 20231

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INFORMATION DISCLOSURE STATEMENT

NOV - 8 2002

Sir:

TECHNOLOGY CENTER R3700

Listed on the accompanying Form PTO-1449 are documents which may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. All of the aforesaid reported references are respectfully requested to be considered in connection with examination of this application, and to be made of record herein.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that an exhaustive search has been made, or that there does not exist information more material to the examination of the present patent application.

Date: November 5, 2002

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APPLICANT: Baumgardner, et al.

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U.S. PATENT DOCUMENTS

Examiner Initials	Document Number	Date	Name	Class	Subclass	Filing Date if appropriate

FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation Yes/No/Abstract

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, etc.)

1	Altes, T.A., et al, "Hyperpolarized ³ He MR Lung Ventilation Imaging in Asthmatics: Preliminary Findings," <i>J. Mag. Res. Imag.</i> 13(3):378-384 (2001).
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3	Burns, C.B., et al, "Evaluation of Single Breath Helium Dilution Total Lung Capacity in Obstructive Lung Disease," <i>Am. Rev. Respir. Dis.</i> 130:580-583 (1984).
4	Darling, R.C., et al, "Studies on the Intrapulmonary Mixing of Gases. II. An Open Circuit Method For Measuring Residual Air," <i>J. Clin. Invest.</i> 19:609-618 (1940).
5	de Lange, E.E., et al, "Lung Air Spaces: MR Imaging Evaluation With Hyperpolarized ³ He Gas ¹ ," <i>Rad</i> 210(3):851-857 (1999).
6	Dubois, A.B., et al, A Rapid Plethysmographic Method For Measuring Thoracic Gas Volume: A Comparison With Nitrogen Washout Methods For Measuring Functional Residual Capacity in Normal Subjects," <i>J. Clin. Invest.</i> 35:322-326 (1956).
7	Gattinoni, L., et al, "Effects of Positive End-Expiratory Pressure On Regional Distribution of Tidal Volume and Recruitment in Adult Respiratory Distress Syndrome," <i>Am. J. Respir. Crit. Care Med.</i> 151:1807-1814 (1995).
8	Gierada, D.S., et al, "Dynamic Echo Planar MR Imaging of Lung Ventilation With Hyperpolarized ³ He in Normal Subjects and Patients With Severe Emphysema," <i>NMR Biomed.</i> 13(4):176-181 (2000).
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11	MacFall, J.R., et al, "Human Lung Air Spaces: Potential For MR Imaging With Hyperpolarized He-3," <i>Rad</i> 200:553-558 (1996).
12	Meneely, G.R., et al, "A Simplified Closed Circuit Helium Dilution Method For the Determination of the Residual Volume of the Lungs," <i>Am. J. Med.</i> 28:824-831 (1960).
13	Middleton, H., et al, "MR Imaging With Hyperpolarized ³ He Gas," <i>Mag. Res. Med.</i> 33:271-275 (1995).
14	Roberts, D.A., et al, "Detection and Localization of Pulmonary Air Leaks Using Laser-Polarized Helium- ³ He MRI," <i>Mag. Res. Med.</i> 44:379-382 (2000).
15	Saha, P.K., et al, "Scale-Based Fuzzy Connected Image Segmentation: Theory, Algorithms, and Validation," <i>Computer Vision and Image Understanding</i> , 77:145-174 (2000).
16	Salerno, M., et al, "Dynamic Spiral MRI of Pulmonary Gas Flow Using Hyperpolarized ³ He: Preliminary Studies in Healthy and Diseased Lungs," <i>Mag. Res. Med.</i> 46:667-677 (2001).
17	Udupa, J. K., et al, "Optimum Image Thresholding via Class Uncertainty and Region Homogeneity," <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 23(7):689-706 (2001).

	18	Udupa, J.K., <i>et al</i> , "Fuzzy Connectedness and Object Definition: Theory, Algorithms, and Applications in Image Segmentation," <i>Graphical Models and Image Processing</i> , 58(3):246-261 (1996).
Examiner Signature:		Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
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